CLAIMS:

- 1. A coding method for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted from at least a previous I- or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, said coding method comprising the following steps:
- a structuring step, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction;
- a computing step, for delivering, for said current frame, statistics related to said parameters;
- an analyzing step, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction;
- a detecting step, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined;
- a description step, provided for generating description data of said occurrences of gradual scene changes;
- a coding step, provided for encoding the description data thus obtained and the original digital video data.
- 2. An encoding device for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted from at least a previous I-or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, said encoding device comprising:

- structuring means, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction;
- computing means, for delivering, for said current frame, statistics related to said parameters;
- analyzing means, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction;
- detecting means, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined;
- description means, provided for generating description data of said occurrences of gradual scene changes;
- coding means, provided for encoding the description data thus obtained and the original digital video data.
- 3. For use in an encoding device provided for coding digital video data available in the form of a video stream consisting of consecutive frames divided into macroblocks, said frames being coded in the form of at least I-frames, independently coded, or P-frames, temporally disposed between said I-frames and predicted at least from a previous I- or P-frame, or B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said predictions of P- and B-frames being performed by means of a weighted prediction with unequal amount of prediction from the past and the future, computer-executable process steps provided to be stored on a computer-readable storage medium and comprising the following steps:
- a structuring step, provided for capturing, for all the successive macroblocks of the current frame, related coding parameters characterizing, if any, said weighted prediction;
- a computing step, for delivering, for said current frame, statistics related to said parameters;
- an analyzing step, provided for analyzing said statistics and determining a change of preference regarding the direction of prediction;

- a detecting step, provided for detecting the occurrence of a gradual scene change in the sequence of frames each time a change of preference has been determined;
- a description step, provided for generating description data of said occurrences of gradual scene changes;
- a coding step, provided for encoding the description data thus obtained and the original digital video data.
- 4. A computer program product for a digital video data encoding device, comprising a set of instructions which when loaded into said encoding device lead it to carry out the steps as claimed in claim 3.
- 5. A transmittable coded signal produced by encoding digital video data according to a coding method as claimed in claim 1.